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EXAMINER				
SAINDON, WILLIAM V				
ART UNIT		PAPER NUMBER		
3623				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail2@bakerbotts.com
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Office Action Summary

Application No.

10/735,542

Applicant(s)

CHAPMAN ET AL.

Examiner

William V. Saindon

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The following NON FINAL Office Action is in response to Applicant's submission received December 12, 2003. Claims 1-23 are pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "Software" is claimed, which does not fall under any statutory class. The Examiner suggests Applicant change the claim from software embodied on a computer readable medium to --a computer readable medium comprising software that when executed performs the steps of--, or similar language.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-5, 7, 13-16, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 2 and 13, it is unclear what the "extracting data associated with..." step does. Claim 2 is an attempt to further limit the "extracting" step of claim 1. The

Art Unit: 3623

extracted data is first grouped, and then certain data is removed. Then some data associated with "production support projects," which is not previously mentioned, is extracted. It is not clear if this data is extracted from the original set of data, or from the extracted set of data. This is because Applicant uses both "removing" and "extracting," language, although they appear to have the same meaning. Is the second "extracting" a further removal of data associated with production support projects? Or is this another set of data created? Similarly, Applicant uses "grouping" language, but it appears that again this is just another "extraction" or "removal" of data from an original set. Grouping data does nothing in this context. If Applicant means "grouping," "extracting," and "removing" to mean different actions, then this should be made clear in the claims, as currently there is no distinction between them. As claimed, each step of claim 2 could be describing the exact same action.

For purposes of examination, the Examiner will construe claims 2 and 13 to require that data used by more than one project is selected and removed.

As to claims 3 and 14, a portion of the data set is randomly selected to be used as a validation dataset. Then a subset of this validation subset is selected. The data is then "aggregated" to create a validation portfolio. It is unclear what this "aggregating" is. The data is already collected together when it was selected. What does "aggregating" it do? On its face, aggregating is nothing more than collecting, which has already been done. There is no difference between the validation dataset and validation portfolio. Both are merely collections of the same data with a different name.

For purposes of examination, the Examiner will construe claims 3 and 14 to require that a subset of data is used for validation.

As to claims 4 and 15, it is unclear what the difference is between the validation of the model done in claim 3 versus the training of the model done in claim 4. Training and validation of statistical models are considered equivocal terms. Therefore, it is unclear how claim 4 is any different than claim 3 (and claim 15 to 14).

As to claims 5 and 16, it is unclear how "applying descriptive statistics" can "correlate" the data. Correlation is a descriptive statistic; therefore applying descriptive statistics cannot correlate the data. For purposes of examination, the Examiner will construe claims 5 and 16 to require that descriptive statistics are applied to the data, and the offending "correlate" and further language is merely a colloquial way to put forth the intended use.

As to claims 7 and 18, the sentence's grammar is unclear making it impossible to determine what the second set of data comprises. There are two "and"s to the list, when 'and' is generally only used for the last item in the list. Further, it is not clear if Applicant requires each item the list to be in the data, or if one or more items need be in the data. For purposes of examination, the Examiner will construe the second set of data to require any of the listed items.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harriet Black Nembhard et al., "A Real Options Design for Product Outsourcing," Proceedings of the 2001 Winter Simulations Conference (B.A. Peters et al., eds. 2001) (hereinafter Nembhard), in view of Examiner's Official Notice.

As to claim 1, Nembhard discloses a computer-implemented method for estimating the feasibility of outsourcing information technology services (see Abstract), comprising:

aggregating at least a portion of the extracted data (see equation 1, noting a formula aggregates data);

creating a statistical model of the historical portfolio based on the first set of data (see equation 1, noting a model of how the part of a final product [portfolio] is made based upon historical data);

generating a simulated portfolio based at least in part on the statistical model (see section 4 - Monte Carlo Simulation, noting that a simulation of the portfolio is done);

generating a cost estimate associated with outsourcing technology services based at least in part on the simulated portfolio and a second set of data, at least a portion of the second set of data containing empirical data, the empirical data containing data and assumptions relating to the historical portfolio (see Fig. 1, noting that the outsource cost is generated in the simulation, the data in the simulation coming in part from assumptions relating to the portfolio by way of the model's variables); and

determining the feasibility of outsourcing technology services based at least in part on the cost estimate (see Fig. 1, noting that a comparison is made between the outsourcing and production costs).

Nembhard fails to explicitly disclose extracting, based on one or more selection criteria, at least a portion of a first set of empirical data associated with one or more software applications in a historical portfolio, the historical portfolio containing software applications utilized by a client. Instead, Nembhard takes in a variety of inputs defining the historical portfolio based on descriptive statistics. See Fig. 2.

However, the Examiner takes Official Notice that it is old and well known to generate the inputs for a model using empirical data. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention for a user of Nembhard to generate the inputs for the model using at least a portion of a set of

empirical data in order to generate inputs that reflect real world experiences with predictable results.

As to claim 2, Nembhard fails to explicitly disclose that data used by more than one project is selected and removed. However, the Examiner takes Official Notice that it is old and well known to remove undesired data from data sets. It would be apparent to one of ordinary skill in the art to remove data that is corresponding to more than one client project because that data represents more than one thing, with the predictable result of removing data that would have a skewing affect on the data. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention for a user of Nembhard to remove undesired data from the data set, such as data used by more than one project, for the purpose of not skewing data.

As to claims 3 and 4, Nembhard fails to explicitly disclose that a subset of data is used for validation/training. However, the Examiner takes Official Notice that it is old and well known to validate/train statistical models using a subset of data. It would be apparent to one of ordinary skill in the art to verify that the model used was appropriate for the data it was intended to work with by testing the model using actual data to achieve the predictable result of determining if the model gives realistic results. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention for a user of Nembhard to validate/train the chosen model for the purpose of not using a bad model.

As to claim 5, Nembhard discloses that analyzing comprises applying descriptive statistics to correlate the aggregated data (see Fig. 2, noting that Nembhard starts with the analyzed data in descriptive form).

As to claim 6, Nembhard discloses retrieving application selective offering (ASO) information, the ASO information containing information regarding the services provided by a provider relating to the management and maintenance of a software applications portfolio, the ASO information and the statistical model being used to generate the simulated portfolio (see Fig. 2, noting that the cost of contracting to the outsourcing services provided for the outsource).

As to claim 7, Nembhard discloses the second set of data comprises data and assumptions related to cost rules related to a provider (see Fig. 2, noting that cost information related to an outsource provider is given).

As to claim 8, note that "cost rules" was selected from the list in claim 7, rendering claim 8 moot. However, even if "cost savings information" was chosen, it would have been obvious to use a "default industry cost savings goal" because the Examiner takes Official Notice that it is old and well known that default numbers are used in the place of actual numbers.

As to claim 9, Nembhard discloses generating a provider cost build-up estimate associated with the simulated portfolio (see Fig. 1, noting "outsource cost," "unit outsourcing price," and "unit delivery cost," which provide the cost estimate of outsourcing).

As to claim 10, Nembhard discloses generating a client price estimate associated with the simulated portfolio (see Fig. 1, noting "outsource cost" which is the estimate of a client's outsource price).

As to claim 11, Nembhard discloses calculating a solution feasibility index associated with the cost estimate; and comparing the index to one or more feasibility ranges (see Fig. 1, noting that an outsource cost is compared to a production cost, both serve as indices when compared).

Claims 12-23 are rejected for similar reasons as claims 1-11.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ojelanki K. Ngwenyama & Noel Bryson, "Making the information systems outsourcing decision," 15 Euro. J. Operational Res. 351 (1999), disclose several models for evaluating a decision of whether or not to outsource.

Sameh M. Saad et al., "Simulation of Distributed Manufacturing Enterprises," Proceedings of the 2003 Winter Simulation Conference (S. Chick et al., eds. Dec. 7-10 2003), disclose methods of using simulation for making decisions such as outsourcing.

Jerry Banks et al., "Opportunities for simulation in supply chain management," Panel Session, Proceeding of the 2002 Winter Simulations Conference (E. Yuecesan et al., eds. 2002), disclose the use of simulation to make outsourcing decisions.

Thompson (US 2002/0120486) discloses a method for analyzing the efficiency of a complex process, including a determination of outsourcing cost/value.

Parker et al. (US 2004/0225549) disclose a method for analyzing an operation of an organization such as an outsourcer.

Keay et al. (US 2005/0065831) disclose simulation of business outsourcing.

Srinivasan et al. (US 6,895,382) disclose a method for arriving at an optimal decision to outsource.

Maeda (US 2003/0158768) discloses a system supporting formation of business strategy including outsourcing.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Saindon whose telephone number is (571)270-3026. The examiner can normally be reached on M-F 7:30-5; alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/wvs/

/Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623